

Derecho - A widespread and usually fast-moving windstorm associated with convection. Derechos include any family of downburst clusters and can produce damaging thunderstorm winds over areas hundreds of miles long and more than 100 miles across.

Downburst - A strong downdraft resulting in an outward burst of damaging winds on or near the ground. Downburst winds can produce damage similar to a tornado.

Downdraft - A small-scale column of air that rapidly sinks toward the ground, usually accompanied by precipitation as in a shower or thunderstorm.

Dry line - A boundary separating moist and dry air masses. It is an important factor in severe weather frequency in the Great Plains. It typically lies north-south across the central and southern High Plains during the spring and early summer, where it separates moist air from the Gulf of Mexico and dry desert air from the southwestern states. The dry line typically advances eastward during the afternoon and retreats westward at night. However, a strong storm system can sweep the dryline eastward into the Mississippi Valley, or even farther east, regardless of the time of day.

Fujita Scale (or F-Scale) - A scale of wind damage intensity in which wind speeds are inferred from an analysis of wind damage. All tornadoes, and most other severe local wind storms, are assigned a single number from the scale according to the most intense damage caused by the storm.

- F0 (weak): 40-72 mph, light damage
- F1 (weak): 73-112 mph, moderate damage
- F2 (strong): 113-157 mph, considerable damage
- F3 (strong): 158-206 mph, severe damage
- F4 (violent): 207-260 mph, devastating damage
- F5 (violent): 261-318 mph, (rare) incredible damage

Funnel cloud - A funnel extending from the base of a towering cumulus or cumulonimbus cloud, associated with a rotating column of air that is NOT in contact with the ground. The terms funnel cloud and tornado are NOT interchangeable.

Gust front - The leading edge of gusty surface winds from thunderstorm downdrafts. Passage of the gust front is usually marked by cool, gusty winds. The gust front often precedes the precipitation by several minutes.

Gustnado - A short-lived vortex (rotation) near the ground and not attached to the base of a convective cloud. They often develop along a gust front. They are classified as thunderstorm wind events.

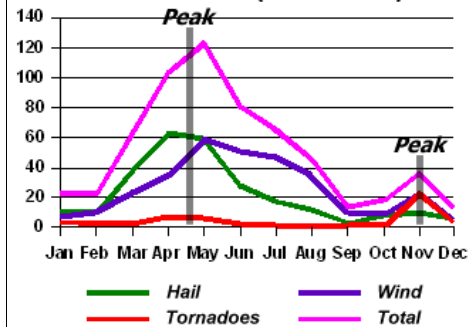
Hook echo - A radar pattern characterized by a hook-shaped (or figure 6-shaped) extension of a thunderstorm echo, usually in the southwest part of the storm. A hook is often associated with a mesocyclone, and indicates favorable conditions for tornado development.

Instability - The tendency for air parcels to accelerate when they are displaced from their original position; the greater the instability, the greater the potential for severe thunderstorms.



Spring is supposed to be the most active period for severe weather in Arkansas. In fact, according to statistics from 1980 to 2004...there was an average of 21 tornadoes through May of each year (in a 124 nautical mile radius of the North Little Rock radar site). There were only 12 tornadoes the remainder of each year.

Avg. Monthly Severe Weather Occurrences (1980-2004)



Through May of 2005, there were only 4 tornadoes statewide...and this total carried through the Summer months. While there is usually a minor peak of severe weather in the Fall, it looked to be a slow year for tornadoes overall. That did not turn out to be the case.

In the picture: Average monthly severe weather occurrences (1980-2004) according to the Storm Prediction Center in Norman, OK.

On September 24th, Hurricane Rita hit the Gulf Coast near the Texas/Louisiana line...and then moved inland. North and east of Rita, 15 tornadoes (mostly weak) were spawned from central into southeast Arkansas.

In the picture: The satellite showed the remnants of Hurricane Rita moving toward Arkansas on 09/24/2005.

